BACTERIOLOGICAL NEWS

Society of American Bacteriologists

OFFICE OF THE EXECUTIVE SECRETARY
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OFFICERS AND COUNCILORS

Councilors Elected by Local Branches:

Council Policy Committee:

Ex officio Members

IMPORTANT NOTICE

ABSTRACT BLANKS ARE ENCLOSED WITH THIS MAILING

SOCIETY AFFAIRS

1961 MEETING IN CHICAGO

The Society of Illinois Bacteriologists is very happy to serve as host to the scientists attending the 61st Annual Meeting of the Society of American Bacteriologists, which will be held at the Morrison Hotel, Chicago, from April 23 through April 27, 1961. All scientific sessions will be held in the headquarters hotel.

Attention is called to the fact that the 61st Annual Meeting will be immediately preceded by a Symposium on Marine Microbiology, which will be held at the Morrison Hotel on April 20, 21, 22 and 24. This special Symposium co-sponsored by the Office of Naval Research and the SAB with the cooperation of the AIBS, points to the increasing emphasis that is expected to be placed on marine microbiology in the coming years. Papers in this Symposium are presented by invitation of the Organizing Committee under Dr. Carl H. Oppenheimer, and will include the contributions of 60 microbiologists—one half from foreign nations. All members of the SAB who are interested are invited to attend: one has only to appear and register at the SAB desk maintained in the Morrison Hotel between April 19 and April 22, 1961, and the single registration fee will be valid for attendance at both meetings. The Society offers particular thanks to the Local Committee in Chicago which has volunteered to provide facilities both for the Symposium on Marine Microbiology and the 61st Annual Meeting. Part of the Program on Monday, April 24th, will be devoted to the subject of Marine Microbiology, and a leading figure in this field, Dr. Jacques Senez of the Centre National de la Recherche Scientifique of Marseilles, France, will deliver the ONR Lecture at the opening session of the SAB on Sunday evening, April 23rd.

In preparation for the 61st Annual Meeting, the Local Committee has been organized by Mr. J. C. McCaffrey of the Illinois Department of Public Health, 1800 West Fillmore Street, Chicago. Upwards of 1700 sleeping rooms have been reserved at the Morrison for those attending the convention. Approximately 250 graduate students can be accommodated at the headquarters hotel at a rate of $3.50 per person with 4 persons in a room. The Sunday night Mixer and the Banquet will be held in the world-famous Terrace Casino. The seating arrangements of the Casino permit all in the room to have an excellent view of the stage. Commercial exhibit facilities are such that an all-time high will be reached in the number of exhibits at the meeting.

The Hostess Committee is planning an unusual program for visiting wives and lady members of the Society. Tours have been scheduled to the famous Argonne Laboratories and to the Armour Institute of Technology. A tour is likewise being planned for the new Sun Times newspaper building.

A large number of rooms will be available for round table sessions that are not a part of the official printed program. Anyone wishing to reserve space for a round table session is asked to write directly to **Mr. John F. Murray,** Chairman, Round Table Sessions Committee, Illinois Department of Public Health, 1800 West Fillmore Street, Chicago. Requests should include the name of the convener, the subject or group title, the preferred time, estimated attendance, and whether or not any projection equipment will be needed.

Persons interested in arranging for special meals or cocktail parties should write to **Dr. Mary Alice McWhinnie,** Chairman, Special Meals Committee, DePaul University, Department of Biological Sciences, 1036 Belden Avenue, Chicago 14, Illinois.

Plan now to attend, recalling that all SAB members who wish to do so can attend the Symposium on Marine Microbiology as well as the 61st Annual Meeting. Bring your wife or husband—they will be royally entertained while you are attending the scientific sessions of the SAB.

ABSTRACTS AND DEADLINE FOR 1961 MEETING

Abstract blanks, in new format this year, are included with this issue of the *News* for the submission of titles of papers. These include *Form A*, intended for photographic reproduction in *Bacteriological Abstracts*, *Form B* in triplicate needed by the Program Committee, one sheet of instructions, one sheet for determining entries in the Subject Index of *Bacteriological Proceedings*, and an order form for the purchase of abstracts

Please note that older sets of abstracts forms are invalidated and should be discarded. Persons who do not find the forms included in this mailing through any error in stuffing the mailing envelopes, or who require additional sets, should communicate with Raymond W. Sarber, Executive Secretary, Society of American Bacteriologists, 19875 Mack Ave., Detroit 36, Michigan.

Attention is drawn to the fact that **abstracts must reach the Chairman of the Program Committee by Thursday, January 5, 1961,** to be considered for the program. This same date is the deadline, also, for other copy that is intended to be included in the *Program* such as programs of Symposia, Committee meetings, Round Table meetings, and the like.

Round Tables and special functions not organized in time for inclusion in the printed *Program* can be listed in the April issue of *Bacteriological News* provided that the notices reach the Program Chairman by February 5, 1961. Later notices can appear only in the first issue of the *Incubator*, to appear on April 23, 1961.

It is expected that approximately the same number of original contributions can be accommodated at the 61st Annual Meeting as were scheduled in 1960.

AN URGENT MESSAGE TO VIROLOGISTS!

For a long time the social life and conscience of virologists has emulated that of viruses: We have been perfect parasites—totally dependent on our hosts. In the free, isolated state, we have been incapable of organized function. Only in proper selective environments, some of us have tended to crystallize in the form of pure, homogeneous clusters. But as a class, we have infiltrated, multiplied, and subverted. We have changed the normal life and function of our various foster Societies.

All of this has worked quite well for us. We have been able to enjoy life, while the complex machineries of our national host Societies saw to our social needs and provided the environments necessary for intellectual exchange and stimulus. By tradition and natural evolution, the S.A.B. has been our major shelter organization. But this adoption was never legalized. As we grew in number and in age, we began to ask questions and to wonder about the propriety of our nameless existence.

The S.A.B. has now responded to this adolescent restiveness by creating a Division of Virology. Thus, raised to the level of respectability, we owe it to our parent Society to make the new Division a focal point of scientific excellence. Fulfillment of this obligation requires thoughtful suggestions and scientific contributions from all who can make them. The Society's annual meetings provide not only a forum for open scientific sessions, but also different mechanisms for arranging formal or informal conferences on pertinent subjects. The future success and *raison d'etre* of the new Division will depend on the high quality of the sessions which it puts on.

The undersigned have been asked by President Cox to guide the affairs of the Division until the Chicago meeting which will take place April 23–27, 1961.

We shall welcome all suggestions concerning formal or informal programming. Most important, we plead for a maximum number of good papers in all areas of virology to ensure interesting sessions. We hope that enough material will be sent in so that the meeting can be made into a unique stock-taking of the important currents in virology. Nothing less will do!

R. WALTER SCHLESINGER
Chairman pro tem
FRANK LANNI
Vice Chairman pro tem
Division of Virology

THE ANNUAL BILLING

By the time you read this you will have received your 1961 dues notice. Also by this time, the headquarters will be literally swamped with the job of processing dues payments. This task, along with such other activities as closing the Society's books, working on the *Program* and the *Proceedings*, and attending to the regular business, makes the November to January period our busiest time.

This is not a plea that you wait until a later date to pay your dues. Quite the opposite is true. Paying your dues promptly helps the Society by furnishing operating funds and helps you by insuring that your journal subscriptions will continue without interruption. But there are certain things you can do to make the headquarters operation run smoothly and insure an uninterrupted flow of journals to the members.

1. Be sure to indicate your choice of journals when remitting dues. Failure to do so necessitates extra bookkeeping and correspondence. And remember **journal choice is final for the year.** Once your choice is made and your subscription is entered with the publisher, it will not be possible to change journals before next year, except to remit $7.00 for the purpose of adding the extra journal.

2. Now a word to those members whose Society dues are paid by their employer. Many employers have sent in dues payments that were completely without information as to the identity of the member or his journal choice. Sometimes a single

check covers several members. Obviously, this necessitates correspondence and delay. So, if your employer pays your dues, please ask him to identify you and your journal choice. If possible, the Society's billing form should accompany the payment.

As we said last year, if you did not receive a dues notice, or do not agree with the amount of your billing, don't "blow your stack." Just write to the Executive Secretary and we'll take care of your problem.

NAME CHANGE APPROVED

The Tellers Committee appointed to count the votes on changing the name of the Society of American Bacteriologists to the American Society for Microbiology reported just before this issue of the *News* went to press. On the committee were Fred L. Rights, Chairman, Myron W. Fisher, and Ruth Manderville. The vote was 2086 for the change to 661 against. Thus the new name was approved by more than the two-thirds majority required by the Constitution (Article XIII).

Before the new name can be officially adopted it will be necessary to amend our Certificate of Association in the District of Columbia, to clear the change with the Internal Revenue Service, and to take care of all other legal requirements. These will be accomplished as quickly as possible.

Many of us doubtless will forget from time to time that we're no longer the S.A.B. but now we're the A.S.M. Whatever the name, we're still the same society striving to do the same things—to advance the science of bacteriology, or if you prefer, microbiology. Perhaps the new name will broaden our scope and bring more people into the Society to help with our programs. Let's hope so.

E. M. Foster
Secretary

NEW SUSTAINING MEMBERS

Members of the Society will be pleased to know that since the last issue of *Bacteriological News* went to press, two new firms have joined the Society as Sustaining Members. The new members are Jensen-Salsbery Laboratories, Inc., and The Pillsbury Co. The Society welcomes them to its growing list of Sustaining Members.

These additions bring our 1960 total of Sustaining Members to a new all time high of 110. The previous high was 101 in 1949, and in 1959 we had 92. In 1960, four Sustaining Members failed to renew their membership and 22 new Sustaining Members joined for a net gain of 18.

The Society needs more Sustaining Members in 1961. There is probably no better way to secure them than through the personal contacts available to you. The next time you talk to a supplier, manufacturer or client, talk SAB and tell the advantages of Sustaining Membership in the Society. If you need assistance, you may write the Chairman of the Membership Committee, Dr. Donald E. Shay, University of Maryland, 618 W. Lombard Street, Baltimore 1, Maryland. Dr. Shay has an attractive and informative brochure for prospective Sustaining Members. He will be glad to work with you on enrolling new prospects. Here is a way you can actively help your Society.

ANALYTICAL MICROBIOLOGY GROUP ELECTS

An election of officers for the Analytical Microbiology Group for the coming year was held at the business meeting and luncheon at the Philadelphia meeting. Fifty-eight members of the group were in attendance. The results of this election were as follows:

General Chairman (1961)	L. J. Dennin
Chairman-elect (1962)	A. P. Saunders
Committee Chairman—Antibiotics	A. Kirshbaum
Committee Chairman—Vitamins and Amino Acids	J. J. Gavin
Committee Chairman—Antiseptics and Disinfectants	E. S. Barclay

This group now has a mailing list of approximately 200 persons who have indicated an interest in this field. Anyone desiring additional information regarding the group is encouraged to contact the General Chairman—L. J. Dennin, Microbiological Testing Department, Eli Lilly and Company, Indianapolis 6, Indiana.

ACTIVITIES OF THE AQUATIC MICROBIOLOGY GROUP

At the 1960 Annual Meeting in Philadelphia, a technical session with nine papers was held with 150 to 200 persons attending. A round table on the general topic of "Association of Microbes with Aquatic Plants and Animals" was participated in by J. B. Lackey, J. Liston, T. W. Johnson, W. Yaphe, and W. L. Belser with an audience of 100 to 150 people.

At a brief business meeting, the Chairman elected for 1961 was Norman Dondero, Department of Sanitation, Rutgers University, New Brunswick, New Jersey. Plans were made to solicit papers for another technical session and round table for 1961. For the round table at Chicago in 1961, H. Heukelekian, G. E. Baker and John Vallentyne have accepted invitations to participate.

A brief report on the development of the coming International Symposium on Marine Microbiology in 1961 was given by C. H. Oppenheimer.

BACTI NEWS FEATURE

SOME PERSPECTIVES IN MARINE MICROBIOLOGY

CARL H. OPPENHEIMER

Institute of Marine Science, University of Texas, Port Aransas, Texas

The SAB-ONR co-sponsored Symposium on Marine Microbiology, which will immediately precede the Society's 61st Annual Meeting in Chicago, is a rare opportunity for Society members to learn more of this growing area of specialization. Because of the limited acquaintance of many bacteriologists with this field, Dr. Oppenheimer, who is Chairman of the Symposium, has prepared the following article as an introduction to the subject. Editor

The primary aims of the Symposium on Marine Microbiology will be to stimulate interest in marine microbiology through open discussions of current research, and to discuss areas of marine microbiology which need more active research. Marine microbiologists are scattered sparsely throughout the world and at present do not have a common meeting group, nor do they have any single representative outlet for publication of microbiological research. As problems in pollution, deterioration, and food resources become more acute, there is a parallel need for the expansion of the field of marine microbiology. It is hoped that this first Symposium will lend impetus to aspects of microbiological problems originating in the marine environment.

Over the past 70 years microbiologists interested in the marine environment such as Certes (1884), Fisher (1888), Issatschenko (1914), ZoBell, and Waksman, etc., have shown that bacteria are widely distributed over the oceans where the presence of available nutrients and energy provide growing conditions or where dormant forms may persist. Although marine microorganisms function in a manner similar to terrestrial microorganisms, they differ in that they grow in a milieu consisting of an average of 3.4 per cent salts and hydrostatic pressures up to 1100 Atmospheres. Sea water has almost every known element: almost two per cent of the salt is sodium chloride with the other common elements in order of abundance being magnesium, sulfur, calcium, potassium, bromine, and carbon.

Generally speaking, microorganisms found in marine environments are bacteria, fungi, viruses, unicellular algae and protozoans. These small organisms have one property in common: they are small enough so that they have a large effective surface-to-volume ratio and may fall into the colloidal range. Regardless of the internal function of the cells, the external surface may be affected physically by surface and interfacial tension, oppositely charged colloids or particles, and changes in salt content. The surface effect may overcome the mass or biological activity and the microorganisms can be carried to surface slicks, adsorbed to larger particles, clumped together or precipitated due to a change in the surface potential. Very little is known about the effects of salts on the colloidal properties of marine microorganisms and especially on metabolism and ion transport through membranes. It may well be that the only difference between a marine microorganism and a terrestrial microorganism is that the former is more efficient energetically and can thus compensate for the osmotic effects of the salts to the cell. The adsorption properties of bacteria favor their persistence in dilute nutrients. Very little organic matter is in solution in the open sea, and a metabolizing bacterium must be attached to particulate food for survival. The charge attraction between the particulate food and the bacterium acts as a concentration factor. Also, inorganic particulate material will adsorb colloids, soluble organic matter, and microorganisms.

There is considerable controversy over the existence of true marine microorganisms. When bacteria are washed from land into the sea, they immediately encounter the osmotic forces of an increase in salinity. Some microorganisms, notably the pathogenic types (including coliforms) are killed within a few days or months exposure to sea water. The microorganisms which survive may be precipitated to the bottom, associate themselves with other organisms, or remain independent within the water. They are subject to upwelling, wave action, hydrostatic pressure, concentration on surfaces, action of filter-feeding organisms, or may be adsorbed to the food of larger organisms. Those surviving this ordeal should be entitled to the name marine microorganisms. Some say that a true marine microorganism is one which will grow only in sea water medium. But in fact, many microorganisms isolated from the sea will adapt themselves to fresh water medium and it is not known whether this and other metabolic changes which occur are genetic or adaptation. Regardless of whether there are true marine bacteria or not, the fact remains that the marine environment is popu-

lated with marine microorganisms. Either living or dead organic matter immediately becomes covered with bacteria and the influences of microbial activity soon appear.

The primary over-all function of marine bacteria in cycles of life in the sea is their heterotrophic role in the mineralization of organic matter, and, of course, the perpetuation of their cells. During metabolism, essential plant nutrients are released into the environment, larger pieces of organic matter are broken down into small pieces, or molecules, oxygen is consumed, toxic hydrogen sulfide is produced, trace elements are concentrated, heat and vitamins are produced, pH is changed, surface active agents are consumed and produced, and many geochemical changes take place. The rate of metabolism depends upon the presence of types of microorganisms, type of organic matter, physical aspects of sedimentary and water environment, pH, Eh, and temperature.

Bacteria have been found in almost all natural samples of sea water and sediment which have been analyzed. The only human pathogen persisting in the sea is Erysipelothrix, which causes skin lesions, although many marine organisms are highly proteolytic and may cause skin infections in man. The distribution of microorganisms is quite sporadic following hydrographic features and the presence of available nutrients. Generally, more bacteria are found near land, and especially where the bottom sediments are stirred up. Sediments normally contain several times more bacteria than the overlying water, and thus upwelling, waves, and storms may move the bacteria from the sediments into the water column. In addition, terrestrial run-off adds bacterial populations. Phytoplankton blooms or schools of fish stimulate the growth of bacteria, and even ocean currents have been tentatively identified by their bacterial content, suggesting that discrete water masses have a characteristic attendant microbial population. The open ocean usually contains fewer microorganisms. Although only 7 per cent of the total oceanic area is less than 200 meters deep, it is estimated that the attendant microbiological activity exceeds the remaining 93 per cent of area.

In spite of almost no available data, it is often said that autotrophic microorganisms may be important in the sea, especially at depths where little organic matter survives the long fall to the bottom of the sea, and larger organisms on the sea floor at great depths may live primarily on organic matter produced by autotrophic activity.

As microorganisms decompose organic matter, the by-products of their activity affect mankind through the deterioration of man-made structures, deterioration of marine food products, and in processes influencing the geochemical environment. Microorganisms play an intimate role in the fouling of submerged surfaces, corrosion of iron, deterioration of wood, rubber, and cordage, and even the destruction of concrete through pH changes. Seafoods may be quickly damaged if the bacteria are not controlled.

Geologists attempt to understand the geologic past by what is happening at the present. The metabolic activities of microorganisms directly affect the diagenesis of sediments by altering compaction processes, solubilization and precipitation of cations, by changing the redox potential and pH, production of gases, solubilization and precipitation of carbonates, sulfur compounds, silica, iron, etc.

An extremely interesting but relatively untouched aspect of the microbiological field is the study of the organization of populations, succession and distribution of species within populations. At the unicellular level of life one sees the many types of microorganisms living in apparent harmony. A novel way of looking at this is to assume that large populations of many species may function as an organism, each different species functioning collectively as a tissue. This may be especially true in shallow marine bays where the temperature is high and microbial population exceeds 10^7 cells per ml. Perhaps one can learn much about cellular organizations through studies of mixed microbial populations. The first attempts to understand such phenomenon have resulted from recent studies of antibiotics *in situ* in the marine environments.

In conclusion, one can say that the ultimate basic function of marine microorganisms is similar to that of terrestrial organisms, but that perhaps because of the difference in environment the pathways are different. Man should be interested in understanding the basic mechanisms of marine microbial action which will help him in future control of the production of food and in the control of microbial metabolic functions which aid and interfere with man's progress.

NEWS AND ANNOUNCEMENTS

VIII INTERNATIONAL CONGRESS FOR MICROBIOLOGY

The Eighth International Congress for Microbiology will be held in Montreal, Canada, from August 19 to 25, 1962, under the auspices of the Canadian Society of Microbiologists, with headquarters in the Queen Elizabeth Hotel.

The Congress will follow in most respects the suggestions of the Executive Committee (1956) and the form of the VII Congress.

There will be five Sections: Structure and Function; Agricultural Microbiology; Industrial Microbiology; Medical and Veterinary Microbiology; and Virology. A tentative list of Symposia and Focal Topics is appended.

A circular giving the scientific and social program, and including forms for registration, hotel accommodation and submission of papers will be distributed about September, 1961. This circular will be sent **only** to those who write the Secretary-General before January 31, 1961, indicating that they plan to attend the Congress. If you are interested in presenting a paper, indicate, if possible, the appropriate Section and Focal Topic.

Symposia

Two or more symposia are being arranged in each Section, so that there will be at least two symposia each morning. All speakers at symposia will be especially invited. It is expected that many, if not all, of the symposia will be published. To ensure rapid publication, speakers must submit manuscripts ready for printing, at the time of the Congress.

Submitted Papers

Concurrent paper sessions of all Sections will be held on four afternoons. Contributed papers dealing with the Focal Topics listed in the enclosed Tentative Program, and with work not published previously, will be considered by the Organizing Committee, which will choose those of greatest interest to the Section and Focal Topic concerned and most suitable for presentation at the Congress; other accepted papers will be listed and considered open for discussion. Abstracts of papers to be presented will be published and available on arrival in Montreal.

Exhibitions

Space will be available for scientific exhibits. If there is interest, a session of demonstrations of methods and techniques may be arranged. Prospective participants should write the Secretary giving details. Only exhibits and demonstrations deemed of sufficient interest by the Executive and Program Committees will be considered.

A commercial exhibition of apparatus, etc., of interest to microbiologists is being planned. Firms wishing to exhibit are requested to write to the VIII International Congress for Microbiology, P.O. Box 177, Station H, Montreal, Canada.

Languages

It is expected that simultaneous interpretation into French and English, the official languages in Canada, will be provided in the Symposia. There will be no interpretation in the paper reading sessions and papers may be presented in any language; however, English and French will be the languages used and understood by most of those attending the Congress. Subsequent Congress announcements and publications will be in English and French only.

Excursions and Social Functions

A bus excursion to Laurentian resorts is planned on Wednesday afternoon, August 22. Entertainment will be arranged on several evenings and a program for ladies not taking part in the scientific sessions will be provided.

Correspondence

All correspondence concerning the Congress should be addressed to:

Dr. N. E. Gibbons, Secretary-General
VIII International Congress for Microbiology
National Research Council
Ottawa 2, Canada.

Post Congress Symposium

A post Congress Symposium on Problems in the Operation of Culture Collections, to be held in Ottawa, under the auspices of the Canadian Committee on Culture Collections of Microorganisms, is being considered. If interested, indicate when writing that you would like to receive announcement about this proposed symposium.

Sections	*Symposia*	*Focal Topics*	
A			*Structure and Function*
	I		Membrane permeability
	II		Properties of isolated cellular particles
		1	Chemistry and formation of cell walls
		2	Chemical and structural changes accompanying spore formation
		3	Protein and enzyme synthesis
		4	Metabolic control of cell synthesis
		5	Genetics and DNA
		6	Cytoplasmic structure and function
		7	Nature and metabolism of reserve materials
		8	The physical and chemical state of the nucleus
B			*Agricultural Microbiology*
	III		Insect microbiology
	IV		Psychrophilic microorganisms
	V		Enzymes in soil
	VI		Effect of chemical and biological control measures on soil microorganisms
		9	Rumen microbiology
		10	Silage fermentations
		11	Dairy microbiology
		12	Ecology of water microorganisms

Sections	Symposia	Focal Topics	
B	VI	13	Rhizosphere
		14	Nitrogen transformations in soil
		15	Ecology of soil microorganisms
		16	Decomposition in soil
C			*Industrial Microbiology*
		17*	Automation and control of process variables
		18*	Genetics applied to industrial microbiology
		19*	Microbial production of amino acids
		20*	Statistics and evolutionary operations in industrial microbiology
		21	Mechanisms and products of microbial biosynthesis
		22	Microbial engineering
		23	Microbial enzymes
		24	Production of cells and viruses
D			*Virology*
	VII		Cellular aspects of the immune response
	VIII		Interference and interferon
	IX		Demonstration of viruses in neoplasia
		25	Virus structure
		26	Biochemistry of viruses
		27	Virus genetics
		28	Neoplasia and viruses
		29	Recently isolated viruses
		30	Respiratory viruses
		31	Viral and rickettsial zoonoses
E			*Medical and Veterinary Microbiology*
	VII		Cellular aspects of the immune response (jointly with Section D)
	X		Pleuropneumonia-like organisms as agents of human and animal disease
	XI		Staphylococci as human and animal pathogens
		32	Mechanisms of specific immunity
		33	Virulence
		34	Infections complicating radiation injury
		35	Pathogenic clostridia
		36	Pathogenic mycobacteria
		37	Streptococci as disease agents in man and animals
		38	Brucellosis
		39	Human and animal mycology
			Additional Symposia will deal with some aspect of Taxonomy (XII) and Human and animal mycology (XIII)

* These sessions will be Panel Discussions.

INTERNATIONAL MEETINGS OF INTEREST TO BACTERIOLOGISTS IN 1961

For those of our readers with a yen for travel to far-away places, and with the wherewithall to do so, the following list of international meetings may inspire the initiation of planning. The following 1961 meetings of interest to microbiologists are listed in the August 1960 issue of the *World List of Future International Meetings*, prepared by the International Organizations Section, General Reference and Bibliography Division, Library of Congress. Dates are not complete in some instances. Person to be contacted for information is given when known.

Spring 1961

Symposium on Fungicides in Agriculture and Horticulture, London, Eng. B. J. Heywood, Soc. of Chem. Industry, May and Baker, Ltd., Dagenham, Essex, Eng.

Mar. 21–23, European Commission for the Control of Foot-and-Mouth Disease, Rome, Italy. Office of the Director General, Food and Agric. Organization, Viale delle Terme di Caracalla, Rome, Italy.

Apr. 20–24, International Symposium "Microbial Reactions in Marine Environments," Chicago, Ill. Carl H. Oppenheimer, Inst. of Marine Science, Univ. of Texas, Port Aransas, Tex.

Summer 1961

International Union of Biological Sciences, Amsterdam, Neth. A. F. Bruun, Zoological Museum of the Univ. Krystelgade, Copenhagen, Denmark.

June, World Symposium on Genetics, Turin, Italy. Minerva Medica, Corso Bramante 83–85, Turin, Italy.

Aug. 10–16, International Congress of Biochemistry, Moscow, U.S.S.R. N. M. Sissakian, Leninsky prospekt 33, Moscow, B-71, U.S.S.R.

Aug., International Association of Medical Laboratory Technologists, Stockholm, Sweden. Elizabeth Pletscher, Universitats-Frauenklinik, Zurich 6, Switzerland.

Sept. 10–14, International Tuberculosis Conference, Toronto, Canada. C. W. L. Jeanes, 265 Elgin St., Ottawa, Canada.

1961 (Dates unknown)

Food and Agriculture Organization of the United Nations, Meeting on Poultry Diseases. International Agency Liaison Branch, Office of the Director General, Viale delle Terme di Caracalla, Rome, Italy.

International Federation of Electron Microscope

Societies, India. Thomas F. Anderson, Institute for Cancer Research, Philadelphia 11, Pa.

International Society for Human and Animal Mycology. Dr. R. Vanbreuseghem, Institut de Medecine Tropicale, 155 rue Nationale, Antwerp, Belgium.

Symposium on Elimination of Infectious Diseases Affecting Laboratory Animal Colonies, Czechoslovakia. W. Lane-Petter, M.R.C. Laboratories, Woodmansterne Rd., Carshalton, Surrey, Eng.

United Nations, Educational, Scientific and Cultural Organization, Symposium on Actual Biological Research in Relation to Germ-Free Animals. Place de Fontenoy, Paris 7e, France.

NOTICE TO AUTHORS

Preparing Manuscripts for the Society's Publications

Authors preparing manuscripts for the Society's publications are asked by the Publication Board to begin at once to adhere to the recommendations in the *Style Manual for Biological Journals*. The *Manual* is published at cost ($3.00) by the American Institute of Biological Sciences, 2000 P Street NW, Washington 6, D. C. The publication is sponsored by the Conference of Biological Editors, an organization of approximately 100 editors. Editors and publication boards of about 75 biological journals have agreed to adopt this *Manual* in whole or in part.

Major sections in the *Style Manual* include: (i) suggestions for writing, (ii) preparation of copy, (iii) approval of manuscripts and release of results, (iv) review of manuscripts, (v) copy editing, and (vi) handling of proof.

The *Manual* provides alternate recommendations in several instances to cover different types of publications. For example, certain primary journals, such as *Applied Microbiology* and the *Journal of Bacteriology*, cite authors in the text of articles by the name-and-year system, whereas review journals (*Bacteriological Reviews*, *Physiological Reviews*, etc.) use the number system. Current usage of author citations in our three publications will not need to be changed. But in other instances changes in our present style (especially in *Applied Microbiology* and the *Journal of Bacteriology*) will be necessary. The International Council of Scientific Unions Abstracting Board recommends that original research papers be accompanied by an author abstract, the abstract to be placed at the beginning of the published paper. *Applied Microbiology* and the *Journal of Bacteriology* will begin adhering to these recommendations in volumes starting 1 July 1961. Summaries will no longer be used at the end of papers. Articles in *Bacteriological Reviews* ordinarily do not have summaries and author abstracts will be unnecessary.

Since abstracts of all articles appearing in our primary journals are included in *Biological Abstracts*, and other abstracting publications, authors are requested to prepare their abstracts with care and in accordance with suggestions in the *Style Manual*. Abstracts are to accompany the original manuscript being submitted for publication.

The Publication Board of the Society of American Bacteriologists has given editors authority to return manuscripts for modification that do not conform to the recommendations in the *Style Manual for Biological Journals*.

LANTERN SLIDES

The advice of the Program Committee with regard to the permissible size of typed copy for photography as lantern slides has produced some expressions of disbelief. Should one adopt a total area of about 5 x 6 inches for typing data? If so, how can necessary data be included in so small a space?

There are at least three facets to the problem: a dislike of preparing tables expressed by many typists, which may result in authors' acceptance of first drafts; the amount of data the author wishes to include on one slide; and discrepancies between actual "projection time" and needed "reading time" when the paper is given.

Persons experienced in attending meetings will recall seeing slides with typed headings spaced far above the tabular matter, and footnotes spaced well below the actual table. Even more, "Table I" may be typed in such a way as to lose three or four vertical lines. All too often, space is wasted between adjacent vertical columns of tables.

One typist was delighted at the final result when her particular Simon Legree said to her: "Here is the table that I have printed in pencil. Just type out, on a single sheet of paper, the title, the column headings, and the widest entries in each column. Then cut these out with scissors and move the slips about on a clean piece of paper ruled out in pencil five inches high by six inches wide. After you make the trial, show me the result: I can often change the wording or suggest alternate abbreviations."

Author and typist, working together from the beginning, can eliminate dead space, include *necessary* data, and avoid losses in final letter size that are inevitable when a table's format becomes either wide-and-shallow, or narrow-and-tall. For maximum letter size in projection, cast the table in the 5:6 ratio.

It should be possible, by the device of using movable slips of paper, to visualize the final format and then to draw lightly the desired box lines on a

new sheet of paper such that a single final typing of the table can be made on the sheet within the pre-planned boxes. Time spent in arranging the layout rewards the author in terms of audience satisfaction.

MERRILL W. CHASE

HEADQUARTERS RECEIVES BACTERIOLOGICAL NEWS SETS

In response to a request in the August issue of *Bacteriological News*, the Society's headquarters is pleased to announce that it is now the proud possessor of not one but two complete sets of Society newsletters. These sets are the generous gifts of veteran Society members Dr. Leland Parr of Washington, D. C. and Dr. Luther Black of Cincinnati.

The Society's news organ began in 1935 as the mimeographed *Newsletter* under the editorship of Dr. Ira Baldwin of the University of Wisconsin, who was, at that time, the Society's Secretary-Treasurer. It continued in this form until 1951 when the present format was adopted. In 1957 the name was changed to *Bacteriological News*. It is fitting that the donor of one of headquarters' sets, Dr. Parr, was editor of 30 issues.

The sets will be suitably bound and placed in the headquarters library where they will serve both as a historical record and as a ready source of information for Society affairs.

The headquarters is grateful to Dr. Parr and Dr. Black, and also wishes to extend thanks to the several members who kindly offered partial sets.

"THE THREAD OF LIFE" ON NBC-TV SHOWS ROLE OF DNA IN HEREDITY

Elements of the role played by deoxyribonucleic acid in heredity are explained in a special color television program, "The Thread of Life," which will be seen over NBC-TV on Friday evening, December 9. The program, part of the Bell System Science Series, takes up the science of genetics.

Dr. Harriett Ephrussi-Taylor, American-born member of the French National Research Council, appears in the program to demonstrate the transmission, through DNA, of the ability of certain pneumococcus bacteria to resist antibiotics.

Dr. Ephrussi-Taylor shows the TV audience two plates, one with a strain of bacteria resistant to an antibiotic and flourishing, and the other with a strain of bacteria not resistant to the antibiotic and dead. She then extracts the DNA from the resistant strain and treats other bacteria from the non-resistant strain with it. After letting the treated bacteria grow for a while, she spreads them in a dish containing the antibiotic. The next day the treated bacteria is shown to be flourishing, thus proving that resistance has been transmitted to the non-resistant strain by DNA.

A model of part of the DNA molecule is also shown in "The Thread of Life." Animation is used to explain how the DNA molecule comes apart when the chromosome divides and then unites with smaller molecules in the cell to form two DNA molecules.

Two Polish scientists, Dr. Andrezj Bajer and his wife, Dr. Jadwiga Mole-Bajer, appear as guests on the program to demonstrate their technique in making stop motion films of the process of mitosis in cells of the bloody lily. In their original work, they devised their own light source from an automobile headlamp and operated their motion picture camera by hand, exposing one frame at every 30 seconds, for more than 24 consecutive hours.

Photomicrographs made by the Drs. Bajer in 1955 are also shown in "The Thread of Life" to illustrate mitosis. Magnified 50,000 times, the pictures are so clear that the chromosomes in the cell can be seen on the television screen.

The functions of both genes and chromosomes are explained on the program, and Gregor Mendel's classic experiments with pea plants are described. Animation is used to illustrate the process of meiosis in the formation of egg and sperm cells. Mutations and some of their practical applications are also discussed in the course of the program.

"The Thread of Life" was produced under the supervision of the Scientific Advisory Board of the Bell System Science Series, a group of ten leading American scientists that includes Dr. George W. Beadle, Nobel Prize winning biologist. Special advisors on the program were Dr. James F. Crow, professor of genetics at the University of Wisconsin, and Dr. Norman H. Horowitz, professor of biology at the California Institute of Technology.

Like earlier programs in the Bell Series, "The Thread of Life" will be made available on 16-mm color film for group showings after the December 9 telecast.

CAREER IN BACTERIOLOGY PRINTING NEARS 50,000

Late in 1954, the Society printed a booklet which has probably become, in point of numbers, its largest single publication. It was in 1954 that Dr. John E. Blair, in response to the recognition and growing need of information on bacteriology as a career, volunteered to produce "A Career in Bacteriology." To say that there was a need for such a publication is an understatement. From the first printing the booklet gained wide acceptance and the demand has been constant.

The initial printing of 2000 copies was soon exhausted, and seven months later 5000 additional copies were printed. This has been followed by a succession of reprintings up to the ninth printing in September, 1960. To date, approximately 48,000

copies have been printed and over 44,000 copies distributed.

For the past year, distribution has been handled by the Society's headquarters which has sent out nearly 12,000 copies. If past distribution has followed the pattern of this year, then distribution has been wide. Requests came from students from the junior high to college level; from libraries; from schools, Veterans Administration, and city, state and federal government agencies; from civic and service organizations; from boards of education and high school and college science teachers and departments; and from professional organizations preparing career kits.

"A Career in Bacteriology" as we now know it, is soon to pass from the scene. The Committee on Education has a grant from the National Science Foundation to write a new booklet which will contain needed up to date revisions and innovations. But "A Career in Bacteriology" has served well and has brought the science of bacteriology to the attention of thousands of students. The Society is indebted to Dr. Blair for his foresight of the need for the booklet and to the many Society members who have contributed to its wide distribution.

MONTANA STATE AND MISSOURI UNIVERSITIES' PROGRAMS PROMOTE MICROBIOLOGY

Reports have been received from two university microbiology departments of active programs in the promotion of microbiology as a career.

From Dr. John J. Taylor, Department of Microbiology and Public Health, Montana State University in Missoula comes an order for 100 copies of "A Career in Bacteriology" and we quote from Dr. Taylor's letter.

"Two uses have been planned for this booklet. First, Montana State sponsors, as do many other universities and colleges, a "High School Career Day" during which students from public and parochial schools throughout the state visit the campus to discuss job opportunities with employers, university staff, and guidance officers. The booklet would allow them to carry with them information more definite than the few statements made to them during their whirlwind tours around campus. Second, we in our department have attempted to travel to various high schools, on invitation of Science Clubs and similar organizations, to present introductions to the field of microbiology. This phase of biology is seriously lacking in most Montana high schools. Again, if the booklet may be left in the high school library, students may consider more deeply the opportunities in the field. I feel it's time we at least attempt to show interested students that the bacteriologist or microbiologist has at times a profession no less fascinating than that of the engineer, physician, physicist, or other popular professional."

At the University of Missouri, Dr. Frank Engley, Jr. of the Department of Microbiology has sent out mailings to high school science teachers and guidance counselors and to biology professors in the junior colleges and colleges in the state.

At the high school level, lists and information on the following is included:

(1) Films from the Audio-Visual Section of the university.

(2) Popular readings in microbiology and general science.

(3) Introductory Microbiology in Biology issue of the *American Biology Teacher.*

(4) The booklet "A Career in Bacteriology."

(5) The Society's Department and Degree Survey.

(6) Mr. Clarence Lange's Do-It-Yourself Microbiology Kit.

(7) Securing "Career Programs" form the Society's Eastern Missouri Branch.

(8) An invitation to visit the department on University Day.

At the college level, with the letter the following is included:

(1) "A Career in Bacteriology"

(2) The microbiology and general science reading lists.

(3) Film list.

(4) Outline of the departmental program in microbiology.

(5) Announcement of the graduate program in microbiology at the university.

(6) An invitation to visit the Department of Microbiology.

(7) An offer to present programs on microbiological subjects.

SUMMER COURSES, 1961

An annual feature of the April issue of *Bacteriological News* is the listing of summer course offerings in microbiology in educational institutions. Departments wishing to list 1961 summer courses in the April, 1961 *Bacteriological News* should write the Executive Secretary (R. W. Sarber, 19875 Mack Ave., Detroit 36, Mich.) before January 5, 1961. A form will be sent to show the information wanted and form for reporting it.

A.I.B.S. TRANSLATION PROGRAM

The American Institute of Biological Sciences, with support from the National Science Foundation, is currently translating and publishing seven Russian research journals in biology. It is hoped

that this material will aid biologists in research, prevent duplication of work, give some idea of the work being done by Soviet scientists in the field of biology, and also bring about a better international understanding among scientists.

Because of the support of the National Science Foundation, the AIBS can offer these translations at a fraction of their publication cost, thereby placing the translations within the reach of all biologists.

The journals currently being translated are: *Doklady*: Biological Sciences Section; *Doklady*: Botanical Sciences Section; *Doklady*: Biochemistry Section; *Plant Physiology*; *Microbiology*; *Soviet Soil Science*; and *Entomological Review*.

In addition to its program of Russian biological journal translations, the AIBS has instituted a separate program of translation and publication of selected Russian monographs in biology.

It was felt that the program of journal translations was not sufficient to cover all of the significant work being done in all fields of biology by Russian scientists. With the aid of competent authorities, the AIBS has translated and published six Russian monographs and one monograph is in the process of being published. The monographs that have been published are: Origins of Angiospermous Plants by A. L. Takhtajan; Problems in the Classification of Antagonists of Actinomycetes by G. F. Gauze; Marine Biology, Trudi Institute of Oceanology, Vol. XX, edited by B. N. Nikitin; Arachnoidea by A. A. Zakhvatkin; and Arachnida by B. I. Pomerantzev. The manuscript for Plants and X-rays by L. P. Breslavets is in the final stages of preparation.

Additional information pertaining to this program may be obtained by writing to the American Institute of Biological Sciences, 2000 P Street, N.W., Washington 6, D. C.

RETIRED PROFESSORS REGISTRY

In these days of emphasis on youth, it is heartening to know that senior scientists have not been forgotten and are actually in demand. In 1957, the Retired Professors Registry was established by the Association of American Colleges and the American Association of University Professors under a grant from the Ford Foundation.

The registry serves primarily as a placement service for retired faculty members who want appointments in institutions other than those from which they have retired, but is also open to other retirees qualified for academic activities.

The Registry operates without fees and supplies to colleges a coded list of registrants. Placements have been numerous and in the biological and physical sciences the demand has exceeded the supply.

Retirees and those about to retire are urged to register by writing to the office at 1785 Massachusetts Ave., N.W., Washington 6, D. C.

NEW SCIENCE STUDENT JOURNAL

While educators and statesmen ponder how they can spur young minds on to scientific achievement, some young Americans have taken the ball and are showing that they can carry it themselves. These young high school and college scientists across the country and beyond its borders are publishing their own scientific journal. It's called *Particle*, and its aim is to serve as an outlet for free expression and exchange of ideas among science students.

Some of the country's top scientists who have seen *Particle* have given it their enthusiastic endorsement. Members of the University of California's staff of scientists are cooperating with the editors, and a nationwide alumni editorial group recently came to the rescue with financial help.

Articles are solicited from science students everywhere. The current issue has articles on these subjects: "Synthesis of P-Trialkyl and Tryaryl-aminophosponium Chlorides," "The Basin and Range Province in the Pleistocene," "Inelastic Scattering of 14 Mev Neutrons from Pb208," and "Astronomical Polar Measurements of the Earth."

The quarterly journal also carries reports on science meetings, correspondence from readers, a varied problem set, and editorial comments.

Copies of *Particle* and further information, may be obtained by writing to Particle, 2531 Ridge Road, Berkeley 9, California.

BIOLOGICAL ABSTRACTS DEDICATES HEADQUARTERS

Biological Abstracts dedicated its new headquarters building at 3815 Walnut Street, Philadelphia Pa., on October 6 and 7, 1960, with a symposium by leading biologists on problems and trends in scientific communications.

Formed in 1926 by a group of prominent biologists, *Biological Abstracts* provides comprehensive abstraction of the world's research literature in all the fields of biology, while scanning more than 4900 publications a year, and circulating its issues among 96 countries and dependencies. Nearly one million abstracts have been published since 1926.

Until 1946, the service was housed in the Zoology building at the University of Pennsylvania, in space donated by the University. Then overcrowding forced the removal of operations to a building at 3613 Locust St. In 1950, the University required this building for other purposes and *Biological Abstracts* was moved to its present site at 3815 Walnut Street. In 1958 *Biological Abstracts* purchased the Walnut Street building and the adjoining property which has been completely remodeled and modernized at a cost of $225,000.

Principal speakers for the October 6th program were Foster E. Mohrhardt, Director, Library, U. S. Department of Agriculture; G. Miles Conrad, Director, *Biological Abstracts*; John J. O'Connor, Institute for Cooperative Research, University of Pennsylvania; William C. Steere, Director, The New York Botanical Garden. The moderator of the day's discussions was Wallace O. Fenn, Professor of Physiology, University of Rochester School of Medicine and Dentistry, who also delivered a summation of the day's work.

On October 7th the speakers for the second session were: Sidney Weinhouse, Chairman, Division of Biochemistry, Institute for Cancer Research; Conway Zirkle, Professor of Botany, University of Pennsylvania; Milan J. Kopac, Professor of Biology, New York University; John S. Nicholas, Professor of Zoology, Yale University; Lloyd W. Hazleton, President, Hazleton Laboratories, Falls Church, Virginia; and Paul B. Sears, Professor of Botany, Yale University. Moderation and summation of this part of the symposium was conducted by James G. Horsfall, Director, Connecticut Agricultural Experiment Station.

As a cooperative service, *Biological Abstracts* is published by biologists for biologists. Collaborating biologists number more than three thousand, and working without compensation, translate and abstract biological research literature originally published in many languages. The section editors, also volunteers, contribute their services in their specialties to insure the accuracy and usefulness of the abstract. These abstracts are a basic reference tool for scientists, researchers, and students throughout the world.

ROYAL SOCIETY CELEBRATES ITS 300TH YEAR

The Royal Society of London for the Promotion of Natural Knowledge, probably the world's most distinguished scientific society, is celebrating this year the 300th anniversary of its founding. Founded in a day when scientific experiment was mainly a pastime of 17th century gentlemen, its membership has included such historically great scientists as Robert Boyle, Sir Isaac Newton, Charles Darwin and Louis Pasteur.

The exclusive Royal Society—its membership is 650 with new members limited each year to 25 British and 4 foreign—is not a government body, but exerts considerable influence on Britain's scientific activities, and its committees are concerned with encouraging and coordinating research in almost every branch of science.

NSF RESEARCH BUDGET INCREASED

The National Science Foundation has announced a budget of $175 million for the 1961 fiscal year, an increase of $25 million over the current year. The bulk of the budget increase will be spent on grants for basic research in the program for improving research facilities. About $67 million, an increase of $8.6 million over this year, is earmarked for research grants. The research facilities program has been increased $6.4 million to a total of $21 million with the bulk of the increase going to general refurbishing of graduate laboratories. Eight million dollars will be available for the refurbishing program as compared with $2 million in 1960.

The scientific manpower program, which covers fellowship grants, teacher training programs and other efforts to produce more and better-trained scientists, has been increased from $64.5 million to $67.3 million.

The Foundation has announced a new program that will allow $1.9 million in unrestricted grants to universities. Under this program, rather than awarding money on a project basis, the Foundation will permit the universities to control the funds. If the trial program is successful, and opposition does not develop in Congress, the Foundation expects to greatly expand the program in the future.

LALOR FOUNDATION RESEARCH GRANTS

A major purpose of the awards of the Lalor Foundation is to assist able young investigators in applying the techniques of biochemistry and biophysics to research problems in various fields of biology. The Trustees of the Lalor Foundation believe that there are specific areas which merit more intensive and wide-ranging research attention than they are now receiving.

One of these critical areas concerns study of the basic biochemical and physiological mechanisms relating to fertility and the early stages of reproduction in various forms of life. The program of the Lalor Foundation for the year 1961 is to offer grants and awards for support of research projects which will add to the scientific understanding of the phenomena within this field. Such research may include related work from any branch of fundamental or applied biology.

A major problem within this area concerns mankind itself. It is hoped that through increased knowledge of the basic phenomena of reproductive physiology may come discoveries which will lead to means for voluntary restriction of unwanted births by safe, practical, and cheap methods that will be used by even the most ignorant and improvident. These methods must be acceptable within a wide range of religious beliefs and cultural levels.

To be eligible for a Lalor grant, the applicant should have experience and indicated research productivity corresponding to the post-doctorate level and be a member of the staff or faculty of a college or university or have equivalent position.

Preferences in appointment will be given to younger members of academic staff with an upper age limit of forty-one. The work may be carried on at the applicant's own institution or elsewhere, whichever best implements the project. These project grants will range from a nominal amount up to $8,000 per year, depending upon their scope and duration. Grants may be renewed under certain circumstances.

For many years the Lalor Foundation has awarded several post-doctorate summer fellowships for work at the Marine Biological Laboratory at Woods Hole, Massachusetts. It is hoped that any qualified younger scientist with a project appropriate to the present program and to M.B.L. facilities will apply directly to the Lalor Foundation for such summer fellowship award. Applications for summer or other short-term fellowships at other institutions will be similarly acceptable. Normally, these awards will not exceed $1,000 for a single man or a woman, $1,200 for a married man working at his home institution, and $1,350 for a married man with principal program at another institution.

Inquiries and requests for application forms for Lalor Foundation grants and awards should be addressed to the Director of the Lalor Foundation, 4400 Lancaster Pike, Wilmington 5, Delaware. The final date for receipt of executed application forms complete with supporting data is January 16, 1961. Notification regarding appointment may be expected by March 15.

MEMBERS LOST OR STRAYED

The following members cannot be reached at the addresses noted. If you know the whereabouts of any of these members, the Society would appreciate it if you would notify the Headquarters Office.

Durand, Rene R.
1825 Francisco
Berkeley, California

Forney, Clare E.
6145 N. Winthrop Street
Chicago 40, Illinois

Gurley, Caroline R.
3241 N. St. N.W.
Washington, D. C.

Motley, Leo
7402 S. Stewart
Chicago 21, Illinois

Savage, Wm. G.
Woodrom Mead
Corfe, Taunton
England

Rockwood, Sue W.
3764 Broadview Drive
Cincinnati 8, Ohio

NOTICES

Robert A. Taft Sanitary Engineering Center Courses: Two Training Courses have been announced.

(1) "Determination of Antibiotic and Pesticide Residues in Milk." This course was developed as a result of the growing need for prevention of this type of milk contamination. It provides detection techniques and procedures for professional people in regulatory and control agencies and in industry and includes sessions for the exchange of problems encountered by these officials.

(2) "Medical and Biological Aspects of Air Pollution" is offered for physicians, veterinarians, and control officials with responsibilities or interests in health-related environmental hazards. Course topics are concerned primarily with the health aspects of air pollution as observed in recorded incidents and explored through laboratory and epidemiologic investigations. It will outline also the broad concepts of an engineering program designed to supplement assessment of a community air pollution problem.

Applications or requests for information on these courses should be addressed to the Chief, Training Program, Robert A. Taft Sanitary Engineering Center, 4676 Columbia Parkway, Cincinnati 26, Ohio, or to a Public Health Service Regional Office Director.

Kaw Valley Heart Association Awards: Ten Kansas City area high school students have been presented with awards "In recognition of distinguished leadership in studies of the basic sciences essential to the prevention and control of heart disease" in connection with the association's Science Talent Search Program. The presentations were made by the Director of the program, Tom R. Hamilton, Department of Microbiology, University of Kansas School of Medicine.

Fungi Center at Dartmouth: A national center for supplying fungi widely used in teaching and research is being established in the botany department of Dartmouth College under an NSF grant. Between 1000 and 2000 genetic strains of *Neurospora* and *Aspergillus* will be maintained and made available upon request. Raymond W. Barrett is directing the project.

Scandinavian Research: Opportunities for specialized postdoctoral training and research in Norway, Denmark and Sweden are available to five U. S. scientists under terms of a NSF grant to the Scandinavian Council for Applied Research. Microbiology is included in the eligible fields. Each grant provides about $1500 for stipend, $700 for travel and $825 for institutional costs. Applica-

tions should be made to the Scandinavian Council for Applied Research, Gaustadallen 30, Blindern, Norway.

University of Maryland Lectures: The speakers for the 1960–61 lecture series of the Department of Microbiology, University of Maryland, College Park, include Dr. R. L. Starkey, Rutgers University; Dr. R. G. E. Murray, University of Western Ontario; and Dr. H. D. Slade, Northwestern University. Persons interested in obtaining copies of these lectures should send their names to the department.

Student Loan Funds Available: The National Defense Student Loan Program announces that colleges and universities throughout the country are invited to apply for participation. The loan program is designed to provide loans to high school seniors planning to enter college and to college students in need of financial assistance to continue their education.

Chemical Corps Grants: The U. S. Army Chemical Corps Biological Laboratories, Fort Detrick, Frederick, Maryland, has announced initial awards under a new grant program planned to support basic scientific research. Research grants have been awarded for investigations under the direction of: James W. Moulder, University of Chicago ($23,782); Donald J. Merchant, University of Michigan ($9,984); A. Frederick Rasmussen, Jr., University of California (Los Angeles) ($55,561); Sanford S. Elberg, University of California (Berkeley) ($20,088); D. M. DeLong, Ohio State University ($15,000); Lloyd E. Rozeboom, Johns Hopkins University ($9,600); George B. Craig, Jr., University of Notre Dame ($20,000); James N. Liles, University of Tennessee ($9,348); and Werner Braun, Rutgers University ($17,072).

Areas of investigation being given consideration for support include the genetic, biochemical and physiological characterization of infectious microorganisms, the host/parasite relationship in airborne infection and medical entomology.

Journals Wanted: The Library at Arizona State University, Tempe, Arizona, wants *Journal of Bacteriology* volumes 1–38; 40–42, and volume 48, as well as *Bacteriological Reviews* volumes 1–3 and volume 8. Contact Roy M. Johnson at above address.

AWARDS

Evelyn L. Oginsky, associate professor of bacteriology at the University of Oregon Medical School, Portland, has received the 1960 Research Award of Iota Sigma Pi, national honor society for women chemists. The award, made once every 3 years to "recognize distinct achievement and to encourage a continuing and expanding career of greater promise," has been presented only four times previously. Dr. Oginsky, co-author of the textbook *Introduction to Bacterial Physiology*, is widely recognized for her study and analysis of mode of action of streptomycin.

Rebecca C. Lancefield has been awarded the third T. Duckett Jones Memorial Award by the Helen Hay Whitney Foundation. Dr. Lancefield, professor at the Rockefeller Institute, received the $6500 award in recognition of her outstanding and extensive investigations on the biology of hemolytic streptococcci. Dr. Lancefield was President of the SAB in 1943.

NEWS ABOUT OUR MEMBERS

Geoffrey Edsall, Director of the Division of Communicable Disease at Walter Reed Institute of Research has been appointed Superintendent of the Institute of Laboratories, Commonwealth of Massachusetts, and Professor of Applied Microbiology at the Harvard School of Public Health.

Joseph E. Smadel has been appointed Chief of the Laboratory of Virology and Rickettsiology in the Division of Biologics Standards, National Institutes of Health.

Jackson W. Foster has been named to the Board of Editors of the *Journal of General Microbiology*, a new international publication which will be published in Germany.

Francis G. Jarvis, formerly at the Rocky Mountain Laboratories, has joined the Department of Bacteriology, University of Idaho, Pocatello.

Samuel J. de Courcy, Jr., has joined the staff of the Veterans' Hospital, Philadelphia. Formerly, he was at the Biochemical Research Foundation, Newark, Delaware.

Robert E. Holman has left E. R. Squibb & Sons to join the Campbell Soup Co., Camden, N. J.

R. Clinton Fuller, Chief of the Microbiology Section at Brookhaven Laboratories since 1954, has been named Professor of Microbiology and Chairman of the department at Dartmouth Medical School.

Vernon Brightman, formerly at the Zoller Clinic, University of Chicago, has joined the Research Department of The Children's Hospital of Philadelphia.

Donald A. Rappoport has left the College of Medicine, Baylor University to join the Department of Pediatrics, University of Texas Medical Branch, Galveston.

John L. Schwab, special assistant to the U. S. Army Director of Research and Development, has joined General Motors Corporation, Detroit, as Head of the Advanced Planning Department for the Defense Systems Division.

Ronald F. Lewis has joined the Robert A. Taft Sanitary Engineering Center, Cincinnati, Ohio. He was formerly at the Hopkins Marine Station of Stanford University, Pacific Grove, Calif.

Gordon E. Green, formerly at the College of

Dentistry, Ohio State University, has joined the Division of Dentistry, Henry Ford Hospital, Detroit.

Oscar W. Richards, chief biologist of the American Optical Company's Research Department, Southbridge, Mass., has been elected an honorary fellow of the Royal Microscopical Society.

George B. Chapman has left Harvard University to join the Department of Anatomy, Cornell University Medical College, New York City.

Charles C. Shepard is now at the Communicable Disease Center, Atlanta, Ga. He was formerly at the U.S.P.H.S. in Montgomery, Alabama.

Karl Reinhard, formerly at the Arctic Health Research Center, Anchorage, Alaska, is now with the Research Grants Review Branch, N.I.H., Bethesda, Md.

Raymond C. Bard, has been named Vice President and Director of Research by the National Drug Company, Philadelphia. He was formerly with Smith, Kline and French Laboratories.

Leonard Laskowski of the St. Louis School of Medicine was the director of a Catholic Hospital Association of the United States and Canada workshop in Mycology held in St. Louis October 10–14, 1960. Other SAB members contributing included **Nicholas Duffett** of the St. Louis Public Health Laboratories and **James T. Barrett,** University of Missouri School of Medicine.

F. B. Engley, Jr., University of Missouri School of Medicine has recently been elected Chairman of the Laboratories Section of the Missouri Public Health Association.

Vincent P. Cirillo, formerly of Anheuser-Busch of St. Louis is now at Seton Hall School of Medicine.

Emil Kotcher has returned to the School of Medicine, University of Louisville, Kentucky, to spend full time in teaching and research after serving for the past two years as Director, Division of Public Health Laboratories, Kentucky State Department of Health.

Max Levine, for 34 years associated with the Dept. of Bacteriology at Iowa State University, and recently retired as Chief of the Bureau of Laboratories of the Hawaii State Dept. of Health, was awarded an honorary D.Sc. degree by the University of Hawaii at its June 1960 commencement. Dr. Levine reports that part of his retirement time will be spent each year teaching a six weeks course in microbiology to talented high school students.

A. Packchanian, Professor of Microbiology at the University of Texas Medical Branch in Galveston, has returned to the U. S. after a six-week seven-nation tour of Europe to observe preclinical facilities and teaching programs.

E. S. Beneke, Department of Plant Pathology, Michigan State University, is spending a year in research and teaching at the Universidade Rural deo Estatdo de Minas Gerais, Brazil.

Cecil S. Cummings of the Department of Bacteriology, London Hospital Medical School, is now a Visiting Investigator studying the structure and biological activity of the streptococci with **Hutton D. Slade** in the Department of Microbiology, Northwestern University Medical School, Chicago.

Harold J. Magnuson has been named Chief of the newly created Division of Occupational Health of the Department of Health, Education and Welfare. The new division was created to place greater emphasis on all types of environmental health hazards.

Harold S. Ginsberg, formerly at Western Reserve University, has been named Professor and Chairman of the Department of Microbiology, University of Pennsylvania School of Medicine, Philadelphia.

LOCAL BRANCH ACTIVITIES

NEWS FROM THE BRANCHES

Illinois

The Illinois Branch has been admitted as a member of the Chicago Technical Societies Council which is composed of 47 technical and scientific societies in Chicago.

The Chicago Technical Societies Council is devoted to the promotion of science, engineering and technology and carries on an extensive program slanted toward future scientists. It sponsors "Career Days" in the Chicagoland high schools and at science fairs. The Illinois Branch will actively promote microbiology in the Council's activities.

Maryland

The Maryland Branch is conducting an organized membership drive, striving for a larger membership in both the Branch and the Society. Of the current 224 Branch members, 149 are members of the Society.

In an effort to obtain closer relations with other Branches, the Maryland Branch is establishing an exchange of newsletters and programs. To date 10 Branches have agreed to the exchange. Items

of interest from other Branches will appear in the Maryland Branch Newsletter.

Colorado-New Mexico-Wyoming

During the past year, the Branch has continued its efforts to interest young people in careers in microbiology both through the distribution of careers information and by awarding the Society's citation to Science Fair winners.

A survey of the Branch Area is being made in an effort to compile a list of all institutions, industries, and laboratories employing bacteriologists. This information will be used to assist individuals interested in a career in microbiology within the area of the Branch.

REPORTS FROM LOCAL BRANCH MEETINGS

South Florida Branch (M. M. Streitfeld, Secretary)

May 28, 1960, University of Miami, School of Medicine, Coral Gables.

1. A dye reduction test for antibacterial sensitivity to antibiotics and chemotherapeutics. G. S. Bieringer, R. P. Porter, J. N. Adam and J. B. Miale, University of Miami School of Medicine and Jackson Memorial Hospital, Miami.

2. The isolation of *Bacterium anitratum* from different animal species. E. M. Ellis, Laboratories Division, Florida Livestock Board, Kissimmee.

3. Demonstration of *Anaplasma marginale* by means of the fluorescent dye, acridine orange. J. H. Gainer, Laboratories Division, Florida Livestock Board, Kissimmee.

4. The *in vivo* assay of griseofulvin in the human stratum corneum. F. J. Roth, Jr. and H. Blank, Depts. of Microbiology and Dermatology, University of Miami School of Medicine, Coral Gables.

5. Studies on carrier cultures. M. M. Sigel, A. Beasley and W. Lichter, Dept. of Microbiology, University of Miami School of Medicine, Coral Gables and Variety Children's Research Foundation, Miami.

6. The pathogenesis of an 'avirulent' strain of Newcastle disease virus in young chicks. T. Burnstein, Variety Children's Research Foundation, Miami and the Dept. of Microbiology, University of Miami School of Medicine, Coral Gables.

7. The cockroach as vector of human staphylococcus infections. V. Armaghan, Cancer Research Laboratory, South Campus, University of Miami, Coral Gables.

Intermountain Branch (Richard D. Sagers, Secretary-Treasurer)

May 21, 1960, Dugway Proving Grounds, Dugway, Utah.

1. A clear medium for the cultivation and quantitation of *Pasteurella tularensis* from cultures and aerosol. V. J. Cabelli, J. S. Trupin and M. Levin, Dugway Proving Grounds, Dugway, Utah.

2. Changes in nutrition and metabolism of *Pasteurella tularensis* as a function of storage time. M. Levin and V. J. Cabelli, Dugway Proving Grounds, Dugway, Utah.

3. The susceptibility of wild animals to experimental Q-fever. Nyven J. Marchette, Robert Sidwell, and Paul S. Nicholes, Ecology and Epizoology Research, Dugway Proving Grounds, Dugway, Utah.

4. Serological response of wild rodents following challenge with *Coxiella burnettii*. Robert W. Sidwell, Nyven J. Marchette and L. P. Gebhardt, Ecology and Epizoology Research, Dugway Proving Grounds, Dugway, Utah.

5. Agent and host factors affecting pathogenicity of *Mycoplasma arthriditis* in rat polyarthritis. E. Virgil Howel, John R. Ward and Russell S. Jones, Departments of Pathology and Medicine, University of Utah College of Medicine, Salt Lake City.

6. Some components of the electron transport system of an iron oxidizing bacterium. Fred M. Shafia, Jay V. Beck and Leo P. Vernon, Department of Bacteriology, Brigham Young University, Provo, Utah.

7. Evaluation of laboratory methods in the detection of cases and carriers of *Corynebacterium diphtheriae* in southeastern Idaho, 1960. Ivan G. Frazier, George Lombard and A. W. Klatz, State of Idaho, Department of Health, Regional Laboratory, Pocatello.

8. Some properties of an esterase of *Hansenula anomola*. Sheril D. Burton, Marian P. Daubeny and Don H. Larsen, Department of Bacteriology, Brigham Young University, Provo, Utah.

9. Infrared spectophotometry in the differentiation of staphylococcal strains. James E. Mohr and Paul B. Carter, Department of Bacteriology and Public Health, Utah State University, Logan.

10. Total ATP-ase activity of homogenates from normal and polio virus infected monkey kidney cells. Frank Deig, L. P. Gebhardt and John G. Bachtold, Department of Bacteriology, University of Utah College of Medicine, Salt Lake City.

11. Studies on the overwintering of western equine encephalitis virus. L. P. Gebhardt and Douglas W. Hill, Department of Bacteriology, University of Utah College of Medicine, Salt Lake City.

Rio de Janeiro Branch (Moyses A. Fuks, Secretary-Treasurer)

July 4, 1960. Joint meeting with the Rio de Janeiro Section of the Socieda de Brasileira de Microbiologia at Silva Araujo-Roussel Laboratory. The following papers were presented:

1. Aspects of human and experimental tuberculosis after chemotherapy, pathology and bacteriology. Nilton Costa, Augusto C. Santiago and Milton Fontes Mararao.

2. On a case of human listeriosis. Genesio Pacheco, Vinicius Moreira Dias and Amauri Godin.

3. Micro flora of *Genipa americana*. Ruth Leibsohn and Antia Panek.

4. Assimilation of structural analogues of the dicarboxylic acids of Krebs cycle by microorganisms. I—Isolation of bacterial species growing on trans-epoxisuccinic acid. Hebe L. Martelli.

BOOKS AND REVIEWS

New Books:

The Anonymous Mycobacteria in Human Disease, John S. Chapman, Editor, Dallas, Tex.: Chas. C Thomas, Publisher, 1960, 173 pp., $7.50.

Encyclopaedia of Microscopic Stains, Edward Gurr, London: The Williams and Wilkins Co., 1960, 498 pp., $18.50.

Experimental Biochemistry, Gerald Litwack, Philadelphia, Pa.: John Wiley & Sons, Inc., 1960, 313 pp., $5.50.

An Outline of Chemical Genetics, B. S. Strauss, Chicago: W. B. Saunders Co., 1960, 188 pp., $5.00.

Human Toxoplasmosis, J. Chr. Süm, Editor, Copenhagen, Denmark: The Williams and Wilkins Co., exclusive U. S. agents, 1960, 220 pp., $12.50.

Practical Clinical Management of Electrolyte Disorders, William J. Grace, New York City: Appleton-Century-Crofts, Inc., 1960, 132 pp., $4.95.

Laboratory Manual for Introductory Zoology, David Pettus, Fort Collins, Colo.: Burgess Publishing Co., 1960, 72 pp., $2.50.

A Laboratory Guide to Virology, Charles H. Cunningham, East Lansing, Mich.: Burgess Publishing Co., 1960, 173 pp., $3.25.

Reviews:

Progress in Industrial Microbiology, Vol. II, D. J. D. Hockenhull, Editor, Ulverston: Interscience Publishers, Inc., 1960, 194 pp., $7.50.

The announced purpose of this scheduled series is to present a collection of reviews of the most significant advances in various fields of endeavor and to include a comprehensive background of the subject, at least in the initial volumes, so that the articles will be of special use to those entering the fermentation field. It is hoped that this series will give inexperienced individuals access to currently significant information and a basis upon which they can build their subsequent reading and research activities.

In the opinion of this reviewer, the article "The Lactobacilli—I" by J. G. Davis, V. A. Knivett's article "The Microbiological Production of Vitamin B_{12} and Sulfide From Sewage", and J. Postgate's "The Economic Activities of Sulfate-Reducing Bacteria" have little or no value for the veteran industrial microbiologist but should be of value as supplemental reading assignments for senior college bacteriologists. Similarly, the article "Developments in Fermenter Design and Fermentation Control" by R. Elsworth should be of some value to individuals entering the field of fermentation, but of little value to more experienced workers.

Industrial and academic workers in applied fermentation will find the article by D. J. D. Hockenhull "The Biochemistry of Streptomycin Production" well-written and well-documented. No doubt, study of this article will be stimulating for workers concerned with process improvements, as well as students of biosynthetic mechanisms. Similarly, the article "Fungal Synthesis of Citric, Fumaric and Itaconic Acids" by D. Perlman and C. J. Sih is a valuable review covering recent research on the production of these acids, as well as currently proposed mechanisms for their biosynthesis. The article "Non-Linear Problems in Statistical and Mathematical Interpretation" by J. P. R. Tootill will be welcomed by many workers in this field, because it will not only contribute to the desire to decrease empirical approaches but also will emphasize the danger of relying upon inappropriate and sometimes utilizing inapplicable mathematical methods.

While this review series will not replace the well-established *Annual Review of Microbiology*, it should find a limited audience among industrial microbiologists and, perhaps, wider acceptance and usefullness in those colleges and universities where various facets of microbiology are taught.

H. E. MACHAMER

Zinsser, Microbiology, 12th Edition, David T. Smith and Norman F. Conant, Editors, with Joseph W. Beard, Hilda Pope Willette, John R. Overman, John E. Larsh, Jr., Ivan W. Brown, Jr., D. Gordon Sharp, and Mary A. Poston, Durham, N. C.: Appleton-Century-Crofts, Inc., New York, 1960, 1026 pp., $13.00.

In its 12th edition, *Zinsser, Bacteriology* becomes *Zinsser, Microbiology* and although this is not indicated in the title, it is essentially a textbook of

medical microbiology. In this edition, the collaborators have been joined by John Larsh who has written a new section on parasitology which includes material on protozoa, helminths, and arthropods. The addition of this material constitutes the only major change from the previous edition and has increased the size of the book by slightly over 70 pages and 52 illustrations. Minor changes in the text include the re-writing of Chapter 3 on General Morphology and Reproduction of Bacteria. Slight modification has been made in material on virology to include additional information on Asian influenza and hemadsorption viruses as well as to modify Table 77 on the Coxsackie virus infections. The index has been revised and expanded to include the material on parasitology. The text utilizes a double column format and is generously illustrated by many fine reproductions and supplemented by numerous figures and tables. The style lends itself to easy reading. The text is refreshingly free from typographical and spelling errors, reflecting the care of preparation. The text is also commendably correct and accurate in scientific material. The inevitable inclusion of some outdated facts is illustrated by the statement that *Pasteurella tularensis* will not grow in plain media although this has been disproved some years ago.* With the exceptions noted above, the contents are substantially unchanged from the previous edition. The paucity of references later than 1954–55 suggests that the bacteriology, immunology, mycology, and sections other than the medical parasitology could stand revision in the not too distant future. The new section on parasitology appears to be accurate if brief. The general descriptions are well written. Visceral larval migrans is given short treatment in the text and there appears to be no mention of the *Echinococcus multilocularis*. The addition of a few basic laboratory methods, procedures and techniques would have made the new section more complete and in keeping with the manner in which the other organisms are treated in the text. It is unfortunate that the majority of the illustrations in the parasitology section which have been taken from Belding have been reversed so that they are white on black illustrations. This obscures detail in some cases and is quite unlike the manner in which most of these parasites, cysts, and ova would be seen under laboratory conditions.

All in all, the text is well designed for the first courses in pathogenic microbiology at the undergraduate level, for the microbiology course for medical students and for graduate courses in medical or pathogenic microbiology.

FRANK B. ENGLEY, JR.

* Bact. Proc. 1946, Proc. Soc. 1946, J. Bact. 1946.

General Cytology, 3rd Edition. E. D. P. DeRobertis, Buenos Aires, Argentina, W. W. Nowinski, Galveston, Texas, and F. A. Saez, Montevideo, Uruguay: W. B. Saunders Co., 1960, 555 pp., $10.00.

The 3rd edition of this book should be received warmly by all those interested in cytology. Although printed primarily as a cytology text for students, the present edition is considerably more sophisticated in approach than the previous editions.

The present volume has been expanded to include four essentially new chapters which embrace cytochemical organization of the cell, the structure of plant cell chloroplasts, growth and cell division, and an additional chapter on cytogenetics. In addition, the parameters of general cytology presented in the previous editions have been expanded and modernized.

As in previous editions of this book, no attempt has been made to present detailed experimental procedures. The authors have provided, however, well referenced descriptions of general procedures for morphological and cytochemical studies. Methods of cytological study described include: tissue culture, microsurgery, histochemical and cytochemical techniques, X-ray absorption and diffraction and spodography. Descriptions of light, fluorescence, polarization and electron microscopy are also included.

Topics such as chemical and physicochemical organization, general organization of the ground cytoplasm of the cell and the golgi complex, morphology and function of mitochondria, plasma membrane and cell permeability, morphologic organization of nucleus and chromosomes, chemical organization of the nucleus, cytologic and cytochemical aspects of cellular activity, and differentiation and senescence of the cell, have been given chapter ranking. In addition to the concise discussion of these topics the continuity of presentation has been improved in this edition.

The chapters dealing with cell growth and division and the two chapters on cytogenetics have been greatly expanded to include such topics as biochemical constituent of the mitotic apparatus, evolution of the mechanism of sex determination, enzymatic adaptation, radiation effects, and cytogenetics and evolution.

The chapter on enzymes and cell metabolism has been supplemented with a section on cellular oxidation and cell metabolism which includes a brief description of aerobic and anaerobic glycolysis and the Kreb cycle.

An amazing amount of information, liberally documented with excellent diagrams, photomicrographs and electron micrographs, concerning the cell and its morphologic and chemical properties has been packed into the 3rd edition of *General*

Cytology. This volume should be a valuable addition to the library of any biologist.

G. T. TRUFFELLI

Lobund Reports, Germfree Life Studies, Number 3, James A. Reyniers, Helmut A. Gordon, Robert F. Ervin, and Morris Wagner, Editors, Notre Dame, Indiana: University of Notre Dame Press, 1960, 182 pp., $5.00.

This is the third of a series of reports describing in considerable detail some of the studies on germfree animals conducted at the Lobund Institute, University of Notre Dame. The first and second reports appeared in 1946 and 1949, respectively. Most of the material consists of original data, observations, and descriptions of techniques.

The report includes 4 different articles. The first is a brief (4½ pages) résumé of the contributions of R. W. Glaser to germfree animal culture. Dr. Glazer's studies were, of course, primarily in the field of invertebrate cultivation.

The second article, which comprises the majority of the report, is devoted to a detailed comparison of two breeds of germfree chickens with their conventional counterparts. Among the characteristics studied were morphology, weight gain, organ size and moisture content, and blood picture. Also, various biochemical, serological and nutritional characteristics of the animals were studied. The objectives appeared to be: (1) a thorough description of the germfree chicken; (2) an estimate of its "normalcy"; (3) where differences from the conventional animal occurred, inferences as to the effect of a flora on these characteristics.

The third section consists of a short (3½ pages) report of a parasitological survey of several species of germfree animals maintained at the Lobund Institute. Of particular interest was the fact that larval and adult ascarids were found in some germfree dogs. Presumably, the infection had been acquired *in utero*.

The final section is a 7-page report on rearing turkeys germfree. The essence of this report is the finding that the techniques developed for rearing germfree chickens apparently can be applied successfully to rearing germfree turkeys.

The discussions of the approaches and techniques employed are interesting, although, it is the reviewer's opinion that some of the detail and comments could have been omitted without detracting from the report. Those familiar with Report No. 2 which included two sections on the rearing of, and some observations on, germfree chickens might gain the impression of having been over some of this material before. Also, while the editors very conscientiously pointed this out when it occurred, some of the values presented in the tables were based on rather small numbers of animals. Nonetheless, this report should prove of interest and informative, particularly to those contemplating studies on the germfree chicken.

WALTER NEWTON

Microbiology, Historical Contributions from 1776-1908, Raymond N. Doetsch, Editor, College Park, Md: Rutgers University Press, 1960, pp. 233, $5.00.

This delightful volume consists of 17 fundamentally great papers written over a period of 132 years by Spallanzani, Schwann, Pasteur, Cohn, Tyndall, Koch, Lister, Schloesing, Burrill, Ehrlich, Winogradsky, Warington, Beijerinck, E. F. Smith and Orla-Jensen. Translations of all foreign papers appear in English. Prefacing each paper is a full page picture and biography of the author. Figures of historical significance occur throughout the text. The volume was made possible by generous grants from the Foundation for Microbiology, Rutgers University, and the General Research Board of the University of Maryland.

As one turns the pages of this historical gem, the reader encounters some of the magnificent moments in the development of bacteriology. The selection of papers is excellent—a feature which provides a balance of the topical specialties now comprising microbiology as a science. The papers, individually and yet collectively, present in broad scope much of the fundamental knowledge on which microbiology was founded. Pleasingly attractive is the inclusion of such basic papers as Koch's lecture to a medical group in 1883 on "The New Methods for Studying the Microcosm of Soil, Air, and Water"; the excerpt of his paper of 1877 "Methods for Studying, Preserving, and Photographing Bacteria"; Schloesing's manuscript of 1877 "On Nitrification by Organized Ferments" and Ehrlich's contribution of 1881 (written at the age of 27 years) "Concerning Methylene Blue and Its Value in Clinical Bacteriology". The printing and reproductions are excellent quality. A minor criticism concerns the title. Manifestly, it is not in the literal sense a book on "Microbiology"—more emphatically, the title should document directly its historical theme.

The value of the volume lies in several channels. Foremost, it is stimulating reading aside from its value as a reservoir of facts, historical minutiae and panoramic coverage of bacteriological developments. The tone of the presentations is instructive and inspiring. In university classroom usage the volume should provide a nucleus around which an interesting course in the history of microbiology could be developed. The references following each paper are accessible and relevant. Relatedly, the subject matter presented invites attention as pertinent material for seminar discussion.

The author and publishers merit commendation not only for realizing the need for unveiling such enlightening literature of the past, but also for making such historical material readily available and appealing to the eye and to the mind.

O. N. ALLEN

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Deeney, Hugh J., Dept. of Bacteriology, Oregon State College, Corvallis, Oreg.

Sobol, Fred S., Hess & Clark, Ashland, Ohio

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Welcomes to membership any person who is interested in its objects, and who holds a bachelor's degree or who has had training and experience equivalent to that represented by a bachelor's degree. The objects of the Society are "to promote scientific knowledge of bacteriology and related subjects through discussions, reports and publications, to stimulate scientific investigations and their applications, to plan, organize and administer projects for the advancement of knowledge in this field, and to improve professional qualifications."

Important in the accomplishment of these objectives are the Society's publications. These include (1) the monthly *Journal of Bacteriology* in which are found original communications on all branches of fundamental bacteriology and on the applications of bacteriology; (2) the quarterly *Bacteriological Reviews*, which contains review articles on subjects of current bacteriological interest; (3) the bi-monthly *Applied Microbiology*, which contains original papers on studies oriented toward the application of microbiological sciences to industry, foods, sanitation, agriculture and other areas involving the use or control of microorganisms; and (4) the quarterly *Bacteriological News*, which includes records of Society affairs, news and announcements, reviews of new books, reports from meetings of the Society's local branches, and anything else deemed to be of interest to bacteriologists.

The Society holds annual meetings where the latest results of research in all branches of bacteriology are presented, and where the members have exceptional opportunities to become acquainted and to discuss work in progress.

The Society operates a Placement Bureau to help bacteriologists find employment; it maintains a collection of pictures, films and other materials useful in teaching bacteriology; and it performs numerous other services of value to bacteriologists.

Annual dues are $15.00, which includes subscriptions to *Bacteriological Reviews*, *Bacteriological News*, and a choice of either the *Journal of Bacteriology*, or *Applied Microbiology*. Members may receive all four publications on payment of $22.00.

Applicants for membership must be nominated in writing by two members of the Society. An applicant who has paid the first year's membership dues and has been endorsed by a majority of the Membership Committee and the Secretary shall be declared elected to membership in the Society.

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Cut on dotted line and mail to S. A. B. Business Office, 19875 Mack Ave., Detroit 36, Michigan

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* *Members' signatures.*

** Journal choice must be indicated and is final for the current year.

Standing Notices

BACTERIOLOGICAL NEWS DEADLINES

Production of *Bacteriological News* requires about two months. Therefore, material intended for publication in the next issues must reach the Executive Secretary's office by the following dates:

Deadlines

For November, 1960 issue—September 16, 1960
For January, 1961 issue—November 7, 1960

NOTICE

Please report change of address, non-delivery of journals, routine inquiries, and similar matters to:

Society of American Bacteriologists
Raymond W. Sarber, Exec. Sec'y
19875 Mack Avenue
Detroit 36, Michigan

CONFIRMED FUTURE MEETINGS

1961—Chicago, April 23–27
1962—Kansas City, May 6–10
1963—Cleveland, May 5–9
1964—Washington, May 3–7

IMPORTANT ADDRESSES

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Morrison Hotel, Chicago, Illinois, *April 23–27, 1961*

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